

Anacapa Deer Mouse

The Anacapa deer mouse (*Peromyscus maniculatus anacapae*), the only native mammal on Anacapa Island, will directly benefit from the removal of rats. Rats competed with mice for food resources on the island, excluded them from certain habitats, and preyed on mice. Rats appear to have been responsible for the 20 year absence of mice from East Anacapa Island (EAI). The removal of rats should result in a long-term increase in the maximum annual population on the island.

The deer mouse presented a unique challenge to eradicating rats – how to deliver the bait to every rat without also eradicating the mice? A management plan was developed to prevent the eradication of mice and ensure their reestablishment after removing the rats.

The Anacapa deer mouse management plan is based on work done by conservation geneticists and deer mouse specialists from the Brookfield Zoo and University of Illinois in Chicago.



The results of that study concluded:

- the Anacapa mice on all three Anacapa islets are genetically similar and could be treated as one population.
- a minimum population size of 333 mice per islet, or 1000 mice total, on the island would be sufficient to protect the subspecies and reestablish healthy mouse populations.

With protecting mice as a top priority we considered a variety of techniques and took several actions to assure the long-term recovery and viability of the Anacapa deer mouse. First, the eradication was staggered over two years so that a free ranging population always existed on one or more islets. Additionally, we held a population of deer mice in captivity followed by a release with subsequent monitoring to ensure viability.

During Phase I of the eradication, we:

- Held a captive population of deer mice on EAI.
- Released them in the spring 2002 and monitored their successful recovery.

During Phase II of the eradication, we:

- Translocated more than 1000 mice from Middle and West Island and held over 700 in captivity on EAI.
- In spring 2003 the mice were reintroduced to Middle and West Anacapa.



Photo of Islands by Bill Dewey

Summary of Mouse Recovery

The Anacapa deer mouse population increased fourfold on EAI between April and August 2002. Breeding began almost immediately after the release. The mouse population is greater than 8000 mice and climbing as of May 2003. The mice on Middle Anacapa are also increasing in numbers and breeding successfully following their release.